

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/037242

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07K16/28 A61P35/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | WO 01/92340 A (IMMUNEX CORPORATION; PLUENNEKE, JOHN, D) 6 December 2001 (2001-12-06) cited in the application claims 1,3 | 1-47 |
| X | ----- DATABASE EPO PROTEINS EBI; 13 June 2005 (2005-06-13), XP002331703 Database accession no. AX365126 the whole document | 1-47 |
| A | ----- HOLT L J ET AL: "Domain antibodies: proteins for therapy" November 2003 (2003-11), TRENDS IN BIOTECHNOLOGY, ELSEVIER PUBLICATIONS, CAMBRIDGE, GB, PAGE(S) 484-490 , XP004467495 ISSN: 0167-7799 ----- | |

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

20 June 2005

Date of mailing of the international search report

13-09-2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Vadot, P

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 36-43 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-47 (all partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Although claims 36-43 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box II.2

Present claims 1-9 relate to an extremely large number of possible compounds. In fact, the claims contain so many possible permutations and provisos that a lack of clarity (and conciseness) within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. Consequently, the search has been carried out for those parts of the application which do appear to be clear (and concise), namely example 5, antibody L1.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-47 (all partially)

An antibody comprising a light chain variable domain consisting of at least 80% identical to SEQ ID NO: 4.

2. claims: 1-7,10,11,14-47 (all partially)

An antibody comprising a light chain variable domain consisting of at least 80% identical to SEQ ID NO: 6.

3. claims: 1-7,10-47 (all partially)

An antibody comprising a light chain variable domain consisting of at least 80% identical to SEQ ID NO:8.

4. claims: 1-7,10-47 (all partially)

An antibody comprising a light chain variable domain consisting of at least 80% identical to SEQ ID NO:10.

5. claims: 1-7,10-47 (all partially)

An antibody comprising a light chain variable domain consisting of at least 80% identical to SEQ ID NO: 12.

6. claims: 1-7,10-47 (all partially)

An antibody comprising a light chain variable domain consisting of at least 80% identical to SEQ ID NO: 14.

7. claims: 1-47 (all partially)

An antibody comprising an heavy chain variable domain consisting of at least 80% identical to SEQ ID NO: 16

8. claims: 1-7,10-47 (all partially)

An antibody comprising an heavy chain variable domain consisting of at least 80% identical to SEQ ID NO: 18.

9. claims: 1-7,10-47 (all partially)

An antibody comprising an heavy chain variable domain consisting of at least 80% identical to SEQ ID NO: 20

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

10. claims: 1-7,10,11,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 22.

11. claims: 1-7,10,11,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 24.

12. claims: 1-7,10,11,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 26.

13. claims: 1-7,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 28.

14. claims: 1-7,10,11,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 30.

15. claims: 1-7,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 32.

16. claims: 1-7,10,11,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 34.

17. claims: 1-7,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 36.

18. claims: 1-7,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 38.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

19. claims: 1-7,14-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 40.

20. claims: 1-7,12-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 42.

21. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 44.

22. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 46.

23. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 48.

24. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 50.

25. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 52.

26. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 54

27. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 56.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

28. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 58.

29. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO: 60.

30. claims: 1-7,15-47 (all partially)

An antibody comprising an heavy chain variable domain
consisting of at least 80% identical to SEQ ID NO:62.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/037242

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|----------------------------|---------------------|
| WO 0192340 | A | 06-12-2001 | US 2002002132 A1 | 03-01-2002 |
| | | | AU 7292501 A | 11-12-2001 |
| | | | CA 2409267 A1 | 06-12-2001 |
| | | | EP 1283851 A2 | 19-02-2003 |
| | | | MX PA02011682 A | 14-05-2003 |
| | | | WO 0192340 A2 | 06-12-2001 |
| | | | US 2003124121 A1 | 03-07-2003 |
| ----- | | | | |